

REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

In the Office Action, claims 1, 3 and 4 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,950,118 to Freeburg et al. ("Freeburg"); claim 17 was rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,664,849 to Taura et al. ("Taura"); claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Freeburg in view of U.S. Patent No. 5,825,756 to Hattori ("Hattori"); claims 6 and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Freeburg in view of U.S. Patent No. 6,396,953 to Abbey ("Abbey"); claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,506,228 to Kammeyer ("Kammeyer") in view of Taura; claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kammeyer in view of Taura; claims 13 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kammeyer in view of Taura and further in view of Abbey; claim 18 was rejected under 35 U.S.C. 103(a) as being unpatentable over Taura in view of Hattori; claims 20 and 22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Taura in view of Kammeyer. Claims 2, 7, 9, 12, 14, 16, and 21 were objected to as being dependent on a rejected base claim, but were deemed allowable if rewritten to incorporate the limitations of the base claims and intervening claims, if any.

In the present Amendment, claims 1, 3, 6, 10-11, 13, and 20-21 have been cancelled. Claims 2, 4, 7, 12, and 14 have been amended in independent form to incorporate subject matter deemed allowable by the Examiner. In particular, claim 2 has been amended to incorporate all the limitations of claim 1. Claim 7 has been similarly amended to incorporate all limitations of claims 1 and 6. Claim 8 has been amended to depend from amended claim 7. Claim 12 has been amended to incorporate all limitations of base claim 10. Claim 14 has been rewritten to incorporate the limitations of base claim 10 and intervening claim 13. Claim 15 has been amended to depend from amended claim 14. Claim 17 has been amended to incorporate all limitations of claims 20-21. Accordingly, upon entry of the present Amendment, claims 2, 7, 12, 14, and 17 will be pending and are believed to be in allowable condition. Furthermore, at least for their dependence on allowable claims, claims 8, 9, 15, 16, 18, 19, and 22 are also believed to be in condition for allowance.

In addition, claim 4 has been amended to incorporate the limitations of original claims 1 and 3. As amended, claim 4 recites a method for demodulating a frequency-modulated signal in which the signal is applied to a limiting amplifier and digitized after being output from the limiting amplifier (“generating the first signal comprises the following substeps: applying the signal to a limiting amplifier; digitizing the output of the limiting amplifier”). The first signal and second signal are multiplied to generate a cross-product (“generating an output signal by determining the cross product of the first signal and the second signal”). Accordingly, the output signal is a cross product of two digital signals. Freeburg teaches a system in which an first signal (Figure 2, item 202) and a second delay signal (Figure 2, item 204) are multiplied to form an

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output signal at an output terminal (Figure 2, item 116) that is subsequently digitized *after* being multiplied (Figure 2, item 212). Thus, Freeburg does not teach or fairly suggest a demodulation technique wherein a first signal and second signal are multiplied to produce a cross-product ("generating an output signal by determining the cross product of the first signal and the second signal"), wherein the first and second signal are digitized signals. Accordingly, upon entry of the present Amendment claim 4 should be in allowable condition. At least for its dependence on claim 4, claim 5 should also be allowable.

In view of the foregoing, claims 2, 4-5, 7-9, 12, 14-19, and 22 are believed to be in condition for allowance. Should the Examiner have any questions or determine that any further action is desirable to place this application in even better condition for issue, the Examiner is encouraged to telephone applicants' undersigned representative at the number listed below.

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